

CLAIMS:

1. A pixel cell (11; 11') in an active matrix display comprising
a current driven emissive element (20),
a data input (17) for receiving an analogue data signal (V_{in}),
at least two drive elements (12, 14), each being connected to a power
5 supply (16) and arranged to drive the emissive element (20) in accordance with said
data signal (V_{in}),
selecting means (22, 24; 22', 24') for providing, in response to a select
signal (21, 23; 21'), said data signal (V_{in}) to at least one of said drive elements (12, 14),
wherein each drive element (12, 14) is adapted to drive the emissive
10 element (20) in a different drive current range in response to a given data signal (V_{in}).
2. A pixel cell according to claim 1, wherein said selecting means
comprises at least two switches (22, 24; 22', 24'), each arranged to be provided with a
separate select signal (21, 23; 21'), said select signal thereby determining the drive
15 current range resulting from a given data signal (V_{in}).
3. A pixel cell according to claim 0, wherein, during a frame period (T_F),
each switch (22, 24; 22', 24') is arranged to receive a select signal which is set either
ON or OFF.
20
4. A pixel cell according to claim 0, wherein during a frame period (T_F),
each switch (22, 24; 22', 24') is arranged to receive a select signal which is alternately
ON and OFF, and wherein said data input (17) is arranged to receive a data signal (V_{in})
which is enabled only during a portion of the frame period.

5. A pixel cell according to any of the preceding claims, where the drive elements comprise transistors (12, 14) having different transistor channel dimensions.
6. A pixel cell according to any of the preceding claims, where the current driven emissive element is an organic LED (OLED) (20).
7. A display device, comprising
a plurality of pixel cells (11; 11') according to claims 0 - 0,
a controller (9), arranged to receive an analogue video signal (61)
belonging to a first voltage range, to generate a data signal (V_{in}) belonging to a second, more narrow voltage range, and to associate said data signal (V_{in}) with a select signal (21, 23) indicating a desired drive current range, and
means (7, 8, 10) for providing said data signal (V_{in}) and said select signal to one of said pixel cells (11, 11').
8. A display device according to claim 0, wherein said first voltage range comprises voltages which are closer to threshold voltages of the pixel cell drive elements than any voltages in said second voltage range.
9. A method for driving a pixel cell comprising an emissive element (20) and at least two drive elements (12, 14) for driving the emissive element, each drive element (12, 14) being adapted to drive the emissive element (20) in a different drive current range in response to a given data signal (V_{in}), said method comprising:
based on an analogue video signal (61) belonging to a first voltage range,
generating a data signal (V_{in}) belonging to a second, more narrow voltage range, and associating said data signal with a select signal (21, 23) indicating a desired drive current range, and
providing said data signal (V_{in}) to a drive element in the pixel cell (11; 11') capable of driving the emissive element (20) in the desired drive current range.

10. A method according to claim 0, wherein said first voltage range comprises voltages which are closer to threshold voltages of the pixel cell drive elements than any voltages in said second voltage range.

5 11. A method according to claim 0 or 0, wherein said select signal comprises at least two select signals (21, 23), each connected to a separate switch (22, 24).

12. A method according to claim 0, wherein, during a frame period (T_F), each select signal (21, 23) is set either ON or OFF.

10

13. A method according to claim 0, wherein, during a frame period (T_F), each select signal (21, 23) only is set ON during a portion of the frame period, and said data signal (V_{in}) only is enabled during a portion of the frame period.

15